

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **September 28, 2004, Work Session**

AGENDA ITEM NO.: 3

CONSENT:

REGULAR: **X**

CLOSED SESSION:

(Confidential)

ACTION:

INFORMATION: **X**

ITEM TITLE: **Water Resources Planning 101 – Water Contracts with Counties**

RECOMMENDATION: This is provided for informational purposes. Staff is seeking Council input and direction related to the water purchase contracts with the surrounding Service Authorities.

SUMMARY: The City of Lynchburg currently sells water to Amherst County Service Authority, Bedford County Public Service Authority, and Campbell County Utilities and Service Authority via wholesale water purchase contracts which are up for renewal June 30, 2005. This presentation provides an overview of the Lynchburg water system, current and future demands, water purchase contracts and their current status. Attachment 1 provides more detailed information on these issues.

PRIOR ACTION(S): None

FISCAL IMPACT: Varies depending upon decisions related to the water contracts.

CONTACT(S): Timothy A. Mitchell, P.E., Director of Utilities, 455-4252
L. Kimball Payne, III, City Manager, 455-3990
Bruce McNabb, P.E., Director of Public Works, 455-3946

ATTACHMENT(S): Attachment 1 - Overview of Lynchburg's Water System and County Water Contracts
Attachment 2 – Water System Map
Attachment 3 - Campbell County Utilities and Service Water Purchase Contract

REVIEWED BY: lkp

Attachment 1
Overview of Lynchburg's Water System
and
County Service Authorities' Water Contracts
September 28, 2004

I. Water System Information

A. Source Information

1. Primary Source – Pedlar Reservoir

- a. Original dam constructed in 1907, subsequently raised twice.
- b. Current storage capacity 1.13 billion gallons.
- c. *Supplies up to a total of 13 million gallons per day (mgd) split between the Abert and College Hill Filtration Plants via a 22 mile, 36" diameter, gravity pipe line.

* Assuming water flowing over spillway.

2. Secondary Source – James River

- a. Rights date back to a Crown Grant – up to 1/5th of the flow of the river, on average over 150 mgd. These rights are potentially subject to State and Federal regulatory powers.
- b. Two James River pump stations, currently with a combined maximum capacity of 22 mgd.

B. Treatment Information

1. Abert Filtration Plant

- a. Constructed in 1974.
- b. Conventional high rate filter plant.
- c. 12 mgd treatment capacity.
- d. Currently undergoing filter renovations.
- e. Average daily production approximately 5.5 mgd.

2. College Hill

- a. Constructed in 1954 (50 years old!)
- b. Conventional high rate filter plant.
- c. 14 mgd treatment capacity.
- d. Alternative disinfection process scheduled for construction this Fall.
- e. Average daily production approximately 5.5 mgd.

C. Distribution System

- 1. Over 450 miles of pipe from 1" to 30".
- 2. Age varies from newly constructed lines, tanks, and pump stations to lines in excess of 150 years old.
- 3. 30 million gallons of storage capacity, (approximately 3 days demand).

D. Summary

Theoretical treatment capacity 26 mgd, realistic treatment and delivery capacity 18-19 mgd under current conditions.

(Refer to Attachment 2 for map of the City's water system, specifically highlighting portions of the system that serve the Counties)

II. Demand Information

A. Total Historical Demands (Combined City and Counties)

Table 1 - Combined City and Counties Historic Demands

Fiscal Year	Total Water Produced (mgd)
FY 2000	12.09
FY 2001	10.92
FY 2002	11.47
FY 2003	10.67
FY 2004	10.66

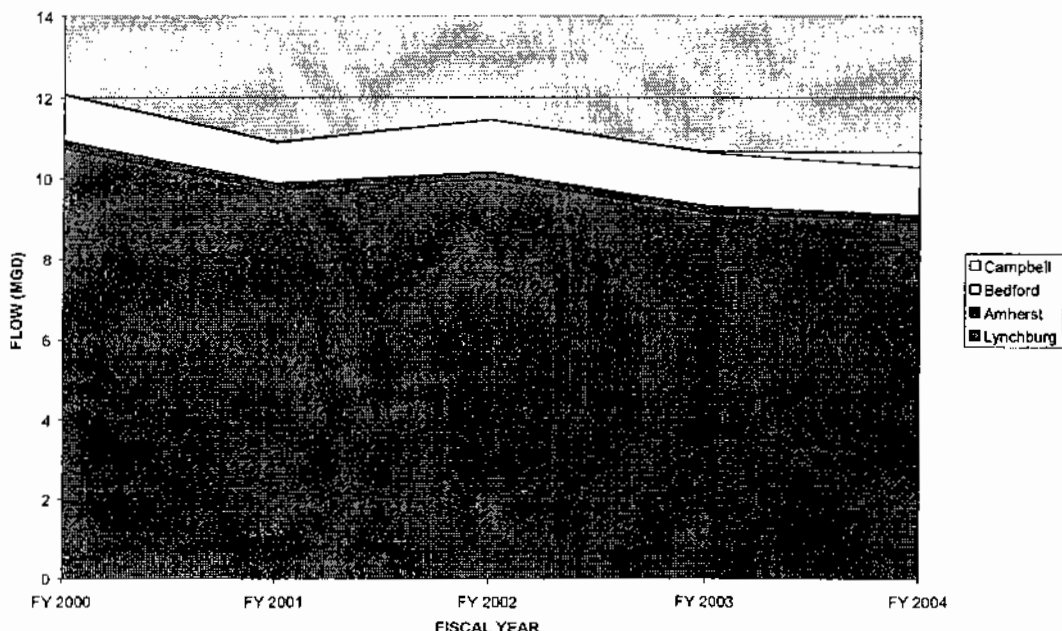
B. Total Historical Demands (City only)

Table 2 - City Historic Demands

Fiscal Year	Total Water Produced (mgd)
FY 2000	10.75
FY 2001	9.73
FY 2002	10.00
FY 2003	9.17
FY 2004	8.95

(Refer to Figure 2 for total historic flows from the City and Counties – Note overall decline in production, specifically related to the City)

FIGURE 2 - HISTORIC WATER CONSUMPTION



C. Refer to Table 3 for total future demands on the City system.

Table 3 - FUTURE DEMAND (mgd)

	2005	2010	2020	2030
AMHERST	0.18	0.18	0.18	0.18
BEDFORD	1.30	1.82	2.53	3.90
CAMPBELL	0.53	0.65	1.00	1.80
LYNCHBURG	9.80	10.00	10.50	11.00
*APPOMATTOX / MT. ATHOS	0.00	0.75	1.50	2.80
TOTAL	11.81	12.65	14.21	16.88

* Potential future demands from additional flows in the Mt. Athos area and Appomattox

D. Regional permitted capacities and demands are as follows (Includes City of Lynchburg, Town of Appomattox, Town of Amherst, Amherst County Service Authority, Town of Altavista, Town of Brookneal, Campbell County Utilities and Service Authority, Bedford County Public Service Authority, and the City of Bedford:

Total Permitted Capacities	>	41 mgd
Total Demands	<	19 mgd
Excess Capacity	=	22 mgd

III. Regulatory Issues

- A. Proposed legislation for local, regional, and state water supply planning requiring preparation of a local water supply plan or participation in a regional water supply plan. Regional cooperation encouraged.
- B. Safe Drinking Water Act compliance.

IV. Current Contracts

- A. All three County contracts are essentially the same.
- B. All expire June 30, 2005.*
- C. Counties can not resell water outside their service area without City of Lynchburg approval except in emergency situations.
- D. If mutually agreed upon City facilities may be modified to provide enhanced service to the Counties. Cost sharing to be provided by the system wide sharing of Capital Expenditures.
- E. Any water restrictions applied to City customers shall also apply to County customers.
- F. Intent to sell water to the Counties as long as the City determines it is in a position to do so.
- G. Provisional rates are established each year based on the system wide cost of supplying water less cost items that are not applicable to providing water service to the Counties plus a rate of return factor that varies based upon consumption. Refer to Table 3 for a rate comparison history.
- H. Year end settling up occurs based on final audited budgeted numbers and actual consumption.

Table 3 – Rate Comparison

County	FY01 Rates	FY02 Rates	FY03 Rates	FY04 Rates	FY05 Rates
Amherst	\$1.51	\$1.44	\$1.59	\$1.63	\$1.76
Bedford	\$1.46	\$1.37	\$1.52	\$1.55	\$1.68
*Campbell	\$1.51	\$1.44	\$1.59	\$1.63	\$1.76
**City	\$1.62	\$1.67	\$1.67	\$1.67	\$1.75

*Supplemental agreement with Campbell essentially commits the City to a continued contract through 2027.

**Includes Block 1 rate only – Blocks 2 & 3 phased out from FY02-FY05.